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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,956	01/15/2002	Keiji Nakayama	218125US2	1536

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EXAMINER

ALLEN, ANDRE J

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,956

Applicant(s)

NAKAYAMA ET AL.

Examiner

Andre J. Allen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amndt filed 4-30-03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Acknowledgment is made of the amendment filed 4-30-03.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Enomoto in view of [EP]Giannakopoulos et al.

Regarding claims 1,6 and 9 Enomoto teaches pressing an indenter into a test object {abstract}, a signal processing unit 15 and detecting charged particles 13 {col. 2 lines 1-10} emitted from a peel starting point or a breakage starting point, specifying a peel occurring time {col 5 lines 15-24} and a fragility breaking time when charged particles are increased, measuring a peel strength and/or a fragility breaking strength {col.5 Lines 10-20}

Regarding claims 1,6 and 9 Enomoto fails to disclose an indentation load detector, and a displacement detector . [EP] Giannakopoulos et al discloses a mechanical property tester comprising:
an indentation load detector {p. page 4}, a displacement detector 46 {h page 4} and a signal processing system 74.

Therefore, it would have been obvious to a person having ordinary skill in the art of material testers at the time the invention was made to modify the apparatus taught by Enomoto with a load detector and

displacement detector as taught by Giannakopoulos et al for the purpose of sensing when a load is being applied and the displacement of a depth sensed {page 4 line 55}.

Regarding claim 2 Enomoto teaches the test object 12 formed by a substrate and fragile thin film covering the substrate.

Regarding claim 3 Enomoto teaches the test object is positioned horizontally and the indenter is vertically pressed into the surface of the test object. {fig. 1}

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enomoto in view of Giannakopoulos et al as applied to claims 1-3 above, and further in view of Tsukamoto.

Regarding claim 4 Enomoto fails to teach arranging the test object to form a tilt angle with the pressing direction of the indenter so the indenter is pressed in a direction inclined with respect to the surface of the test object. Tsukamoto teaches arranging a test object to form a tilt angle with the pressing direction of the indenter so the indenter is pressed in a direction inclined with respect to the surface of the test object. {fig. 1}10, 1b,1a and 1

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the material test apparatus taught by Enomoto in view of Giannakopoulos et al with the function of arranging the test object with the capability of forming a tilt as taught by Tsukamoto for the purpose of creating a material test apparatus that has more versatility and is more precise.

Regarding claim 5 Enomoto teaches when charged particles are collected by a charged particle collecting element, an electric potential having a polarity

different from that of the charged particles to be collected is applied to the charged particle collecting element {col. 4 lines 15-20}

Regarding claim 7 Enomoto does not teach a mounting base changeable between a horizontal state and an inclined state. Giannakopoulos et al teaches a mounting base changeable between a horizontal state and an inclined state (x,y) {page 2 line 37}.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Enomoto with a changeable mounting base as taught by Giannakopoulos et al for the purpose of creating a base that offers more flexibility and versatility.

Regarding claim 8 the front end portion of the indenter is formed by a diamond, a sapphire or a piezo-electric material {col. 1 line 15}

Regarding claim 10 Enomoto et al in view of Giannakopoulos et al does not teach a light reflection intensity meter as an displacement detector however Giannakopoulos et al does teach a displacement detector 46. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a light reflection intensity meter as a displacement detector, since it has been held that omission of an element and its function in a combination where the remaining element perform the same function involves routine skill in the art. In re Karlson, 136 USPQ 184. In this particular case Giannakopoulos et al teaches the use of a displacement detector, but does not use a light reflection intensity meter.

Response to Arguments

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3. Applicant's arguments filed 4-30-03 have been fully considered but they are not persuasive.

In response to the applicants arguments that the cited art does not teach a charged particle collecting element is clearly disclosed by Enomoto {col. 2 lines 25-27}

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre J. Allen whose telephone

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number is 703-3081989. The examiner can normally be reached on mon-fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 703-305-4816.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-3432 for regular communications and 703-308-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

A.J.A
Art Unit 2855
July 14, 2003


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800